

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/977,297

AMENDMENTS TO THE DRAWINGS

In response to the objection to the drawings, Fig. 1 is labeled "prior art" and the reference number of the lower adder in Fig. 4 is changed from "A2" to "A3".

Attachment: Two Replacement Sheets

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REMARKS

Reconsideration and allowance of the subject application are respectfully requested. Upon entry of this Amendment, claims 1-7 are pending in the application. In response to the Office Action, Applicant respectfully submits that the pending claims define patentable subject matter. By this Amendment, Applicant has amended claims 1-7 to improve clarity.

The drawings are objected to because the Examiner contends that Figs. 1 and 2 should be labeled "prior art". The drawings are further objected to because the reference character "A2" has been used to designate two different adders in Fig. 4. Along with this Amendment, Applicant is submitting replacement drawings wherein Fig. 1 is labeled "prior art" and the reference number of the lower adder in Fig. 4 is changed from "A2" to "A3". However, Fig. 2 is not being labeled is not prior art since Fig. 2 illustrates a receiver according to the present invention as indicated in the specification. Accordingly, the Examiner is requested to remove the objection to the drawings.

The specification is objected to because of several informalities note by the Examiner. By this Amendment, Applicant has amended the specification to address the objections and improve clarity. Accordingly, the Examiner is requested to remove the objection to the specification.

Claim 5 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite because the Examiner maintains that several claim limitations lack an antecedent basis. By this Amendment, Applicant has amended claim 5 to address provide an antecedent basis for the claim

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/977,297

limitations. Accordingly, the Examiner is requested to remove the § 112, second paragraph, rejection.

Claims 1, 3, 6 and 7 are rejected under 35 U.S.C. § 102(b) as being anticipated by Tremblay et al. (U.S. Patent No. 4,823,360; hereafter "Tremblay"). Claims 2 and 4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Tremblay in view of Bulow (U.S. Patent No. 6,016,379). Applicant respectfully submits that the claimed invention would not have been anticipated by or rendered obvious in view of the cited references.

With regard to the independent claims, the Examiner asserts that Figs. 3 and 4 of Tremblay disclose all of the features of the claimed invention including an optical/electrical converter (82), an electronic feedback filter (90) and two eye monitors (26, 78) for determining the quality of the transmission link, the output of the at least one eye monitor being connected to the input of the electronic feedback filter.

Amended independent claims 1 and 3 require an eye monitor which comprises:

first and second threshold-value decision elements for deciding a level of a data signal based on first and second threshold values which are set close to vertices of an eye opening of an eye diagram;

first and second signal comparators for determining pseudo-errors by comparing decided signals output by the threshold-value decision elements with a signal altered by pseudo-errors;

first and second integrators for integrating the pseudo-errors output by the first and second signal comparators to generate first and second internal control variables; and

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/977,297

first and second regulators which correct the first and second threshold values based on comparisons between the first and second internal control variables and first and second setpoint values, respectively.

In Tremblay, only one monitor is used to produce a single threshold level (V_{opt}). Moreover, in Tremblay the eye opening is not measured, the performance monitor compares the incoming signals with three power levels. The levels $V+$ and $V-$ are predefined and not measured. Further, in Tremblay, there is no generation of a pseudo error (by the EXOR devices) which allows the measurement of the upper and lower eye opening level.

Accordingly, Applicant respectfully submits that claims 1 and 3 should be allowable because Tremblay, alone or in combination with Bulow, does not teach or suggest all of the features of the claims.

Similarly, Applicant respectfully submits that method claims 6 and 7. In particular, Tremblay, alone or in combination with Bulow, does not teach or suggest the claimed steps of claim 6 including:

determining garbled signal with two threshold values which correspond approximately to vertices of the eye opening,

generating a data signal with pseudo-errors and detecting pseudo-errors through comparison with a correct signal, and adding the pseudo-errors through integration,

comparing each of the pseudo-errors with a setpoint value, and

readjusting deviating quantities and generating a differential signal of the threshold values as a measurement value.

Nor do the cited references teach or suggest the claimed steps of claim 7 including:

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 09/977,297

determining the signal with a feedback filter which makes decisions on the basis of set threshold values and on the basis of an already determined signal, determining an eye opening of the signal with two eye monitors which determine eye edges at vertices of the signal and supplying a result to a feedback filter as parameters, and setting the threshold values of threshold value decision elements in the feedback filter, the parameters being used for setting of the threshold values so that the signal is determined in the eye optimum.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

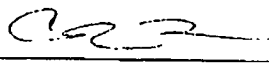
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